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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
RYMAN, DANIEL J	
ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/775,305	NELSON ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19-26* is/are allowed.

6)☒ Claim(s) *1-13,15-18,27-39 and 41-43* is/are rejected.

7)☒ Claim(s) *14,24 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/5/05; 8/18/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/5/2005 have been fully considered but they are not persuasive. On pages 10-12 of the Amendment filed 7/5/2005, Applicant asserts that Jalali fails to disclose "generating a reference signal over a selected one of the first or second coded channels." Examiner, respectfully, disagrees. Jalali discloses sending a reference signal over one of a plurality of SSR channels ("a first and second coded channels") (col. 6, lines 14-27) where the base station selects which one of the multiple SSR channels the mobile station will use to communicate (col. 5, lines 4-10). Since Applicant only requires selecting either the first or second coded channels, without specifying which network element performs the selecting, Examiner maintains that Jalali anticipates the limitations of the independent claims.

Claim Objections

2. Claim 24 is objected to because of the following informalities: claim 24 should depend upon claim 23, such that "the feedback message" limitation in claim 24 has an antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 15, 18, 27, 29-33, and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Jalali et al. (USPN 5,828,662).

5. Regarding claims 1 and 27, Jalali discloses a method for supporting wireless communications between a transmitter and receiver, the method comprising the steps of: allocating both a first and second coded channels (multiple SSR channels) in a common direction to support synchronized communications from a transmitter to a receiver (col. 6, lines 14-27); and assigning a time segment in which the transmitter communicates an indication to a target receiver by generating a signal at an adjusted power level (col. 5, lines 16-34) over a selected one of either the first or second coded channels (col. 5, lines 4-10 and col. 6, lines 14-27) where the base station selects which one of the multiple SSR channels the mobile station will use to communicate.

6. Regarding claims 2 and 29, Jalali discloses that the signal transmitted over the first or second channel includes only pilot information (col. 5, lines 35-39 and col. 6, lines 40-42) where the SSR channels contain only synchronization information which is functionally equivalent to pilot information.

7. Regarding claim 3, Jalali discloses that the transmitter is one of multiple field units and the receiver is a base station (col. 5, lines 16-52).

8. Regarding claims 4 and 30, Jalali discloses that the signal transmitted over the first or second channel does not include a forward error correction information (col. 6, lines 36-53) where the SSR signal does not include FEC information.

9. Regarding claims 5 and 31, Jalali discloses that the signal transmitted over the first or second channel does not include a data payload (col. 6, lines 36-53) where a data payload is sent over a traffic channel.

10. Regarding claims 6 and 32, Jalali discloses that a generation of a signal on the first coded channel indicates a request by the transmitter to be assigned traffic channels for transmitting a data payload (col. 2, lines 35-37 and col. 5, lines 35-45) where the mobile is assigned a traffic channel upon reception of the SSR signal by the base station.

11. Regarding claims 7 and 8, Jalali discloses that a generation of the reference signal by the transmitter on the second coded channel provides a reference signal to the receiver for maintaining synchronization (Fig. 4 and col. 1, lines 40-48).

12. Regarding claims 9 and 35, Jalali discloses that an assigned time segment for use by a transmitter repeats on a periodic basis so that the transmitter may communicate an indication to the receiver on a periodic basis (col. 6, lines 23-27).

13. Regarding claims 10 and 36, Jalali discloses that each of multiple transmitters is assigned one of multiple periodically repeating and adjacently disposed time segments in which to communicate with a target receiver over the first or second coded channels, each assigned time segment corresponding with a separate communication link between a transmitter and target receiver (Fig. 4; col. 5, lines 4-10; and col. 6, lines 14-27).

14. Regarding claim 15, Jalali discloses that the receiver detects a marker in the first or second channel for maintaining synchronization between a transmitter and the receiver (col. 1, lines 41-44).

15. Regarding claim 18, Jalali discloses that a transmitter is notified in which time segment to transmit based upon at least one message received over a forward link paging channel (col. 5, lines 4-10 and col. 5, lines 35-45).

16. Regarding claim 33, Jalali discloses that a generation of a signal by the transmitter on the second coded channel provides a signal to the receiver for maintaining a minimal power level to support communications (col. 5, lines 16-20) where Jalali teaches a transmitter programmed to operate at its lowest power setting.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claims 11-13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali et al. (USPN 5,828,662) in view of Abramson (USPN 5,537,397).

19. Regarding claim 11, Jalali does not expressly disclose maintaining transmissions on the first and second channels in a time segment by analyzing the reference signal on the first or second channels at the receiver; and adjusting timing of the transmitter by sending a message from the receiver to the transmitter indicating whether to advance or retard timing so that subsequently generated reference signals on the first or second channel fall within a corresponding time segment. Abramson teaches, in a CDMA communication system, adjusting timing of a transmitter by sending a message from a receiver to the transmitter indicating whether to advance or retard timing in order to decrease mutual interference among the multiple transmitters (col. 5, lines 58-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to maintain transmissions on the first and second channels in a time segment by analyzing the reference signal on the first or second channels at the receiver

and adjusting timing of the transmitter by sending a message from the receiver to the transmitter indicating whether to advance or retard timing so that subsequently generated reference signals on the first or second channel fall within a corresponding time segment in order to decrease mutual interference among the multiple transmitters.

20. Regarding claim 16, incorporating the rejection of claim 12, Jalali in view of Abramson teaches each limitation of claim 16, as outlined in the rejection of claim 12, except transmitting the timing message over a paging channel. Instead, Jalali in view of Abramson teaches transmitting the timing message over a pilot channel (Abramson: col. 5, lines 58-65). Examiner takes official notice that using a paging channel to communicate information is well known in the art (Jalali: Fig. 1 and col. 5, lines 4-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that one may use either a pilot channel or a paging channel to convey the timing information, with the choice depending on which channel is more convenient.

21. Regarding claims 12, 13, and 17, Jalali in view of Abramson does not expressly disclose the use of a single bit or multi-bit logic string, or its logic level to indicate that the timing should be advanced or retarded; however, such a use is obvious as a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use either a single bit or multi-bit logic string, or its logic level to indicate that the timing should be advanced or retarded in order to convey the timing information to the transmitter.

22. Claims 28, 34, 37-39, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali et al. (USPN 5,828,662) in view of Saints et al. (USPN 6,097,972).

23. Regarding claim 28, Jalali does not expressly disclose that a power level of the signal transmitted over the first or second channel is adjusted based on feedback messages. Saints teaches, in a CDMA communication system, using feedback messages sent from the receiver to the transmitter in order to ensure that the signals transmitted by the multiple transmitters arrive at the base station with amplitudes that are approximately equal to one another (col. 1, lines 31-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the power level of the signal transmitted over the first or second channel based on feedback messages in order to ensure that the signals transmitted by the multiple transmitters arrive at the base station with amplitudes that are approximately equal to one another.

24. Regarding claims 34, 37, and 41, Jalali does not expressly disclose measuring the power of a received signal at a receiver and signaling the transmitter to adjusting the power level of subsequent transmissions based on the power level of the received signal. Saints teaches, in a CDMA communication system, measuring the power of a received signal at a receiver and signaling the transmitter to adjust the power level of subsequent transmissions based on the power level of the received signal in order to ensure that the signals transmitted by the multiple transmitters arrive at the base station with amplitudes that are approximately equal to one another (col. 1, lines 31-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to measure the power of a received signal at a receiver and signal the transmitter to adjust the power level of subsequent transmissions based on the power level of the received signal in order to ensure that the signals transmitted by the multiple transmitters arrive at the base station with amplitudes that are approximately equal to one another.

25. Regarding claims 38, 39, and 42, Jalali in view of Saints does not expressly disclose the use of a single bit or multi-bit logic string, or its logic level to indicate that the power level should be increased or decreased; however, such a use is obvious as a matter of design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use either a single bit or multi-bit logic string, or its logic level to indicate that the power level should be increased or decreased in order to convey the power level information to the transmitter.

26. Regarding claims 43, Jalali in view of Saints discloses that a transmitter is notified in which time segment to transmit based upon messages received over a forward link paging channel (Jalali: Fig. 1 and col. 5, lines 4-10).

Allowable Subject Matter

27. Claims 19-26 are allowed.

28. Claims 14 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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